STIC SEARCH

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B 155,5,73,144, 35,65,45,23, 136, 164, 91, 95, 6, 8
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```
S1      37603   S HYPERBARIC
?  limitall /s1
LIMITALL started
S2        187   S HIV OR AIDS OR HUMAN()IMMUNODEFICIENCY()VIRUS? OR
HUMAN()IMMUNO()DEFICIENCY()VIRUS? OR HUMAN()IMMUNE()DEFICIENCY()VIRUS? OR
HUMAN()IMMUNEDEFICIENCY()VIRUS? OR ACQUIRED()IMMUNE()DEFICIENCY OR
ACQUIRED()IMMUNEDEFICIENCY OR ACQUIRED()IMMUNO()DEFICIENCY OR ACQUIRED()IMMUNODEFICIENCY
OR VIRAL()LOAD? OR CD4 OR CD8 OR T()CELL? ?
S3        187   S S1 AND S2
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S4          115   RD S3  (UNIQUE ITEMS)
S5           16   S S4/2004:2007
S6           99   S S4 NOT S5
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6/7/3 (Item 3 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

14454403 **PMID:** 12921756
Early hyperbaric oxygen therapy attenuates disease severity in lupus-prone autoimmune (NZB x NZW) F1 mice.

Chen Shao-Yuan; Chen Yen-Chen; Wang Jehng-Kang; Hsu Hsiao-Ping; Ho Pey-Shen ; Chen Yi-Chyan; Sytwu Huey-Kang
Institute of Undersea and Hyperbaric Medicine, National Defense Medical Center, Taipei, Taiwan, Republic of China.
Clinical immunology (Orlando, Fla.) (United States) Aug 2003 , 108 (2) p103-10 , **ISSN:** 1521-6616--Print
Journal Code: 100883537
Publishing Model Print
Document type: Comparative Study; Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The effects of **hyperbaric** oxygen (HBO(2)) therapy on the immune system are reported including potential changes to the **CD4/ CD8** ratio and a decreased proliferation of lymphocytes during exposure. The immunosuppressive effect of HBO(2) had been suggested to be applicable for the treatment of certain autoimmune diseases. (NZB x NZW) F1 hybrid mice, the unique lupus-prone mice, have been used for elucidating the pathogenesis of SLE. To investigate the effect of HBO(2) on NZB/W F1 lupus-prone mice, 32 female mice were divided into four groups. Three groups of mice were treated with HBO(2) (2.5 atm abs (ATA) for 90 min daily over 2 weeks) starting at (A) 3 months, (B) 6 months, or (C) 8 months of age, while the remaining group (D) served as control. Animals were followed until 11 months of age. Experimental parameters included life span, proteinuria, peripheral lymphocytes, anti-dsDNA antibody titers, and renal histopathology. HBO(2) treatment resulted in increased survival, decreased proteinuria, alterations in lymphocyte-subset redistribution, reduced anti-dsDNA antibody titers, and amelioration of immune-complex deposition in groups A and B. Our data demonstrated that HBO(2) therapy attenuated disease severity in NZB/W F1 mice. HBO(2) treatment may be of use in the clinical treatment of lupus patients and would benefit from further study.
Record Date Created: 20030818
Record Date Completed: 20031001

6/7/5 (Item 5 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

13635835 **PMID:** 11845376
[Effects of Repetitive Exposure to Hyperbaric Oxygen (HBO) on Leukocyte Function]

Einfluss der hyperbaren Sauerstofftherapie auf die Funktion humaner Leukozyten.
Jaeger K; Juttner B; Sommer C; Scheinichen D; Ruschulte H; Franko W; Heine J
Zentrum Anasthesiologie, Medizinische Hochschule Hannover. jaeger.karsten@mh-hannover.de
Anasthesiologie, Intensivmedizin, Notfallmedizin, Schmerztherapie - AINS (Germany) Jan 2002 , 37 (1) p24-8 , **ISSN:** 0939-2661--Print **Journal Code:** 9109478
Publishing Model Print
Document type: Clinical Trial; English Abstract; Journal Article
Languages: GERMAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
OBJECTIVE: Despite favourable clinical data on the successful use of **hyperbaric** oxygen (HBO), only limited investigations have been carried out to date regarding the influence of hyperoxia on leukocyte function. In a murine model, **CD4+ T-cell** population remained unchanged after repeated HBO exposure, however **CD8+** cells were found to be increased. The aim of this study was to investigate whether repetitive exposure to hyperoxia would affect human monocyte and lymphocyte function. METHODS: Methods: After Ethics Committee approval the effects of elevated partial oxygen pressure were studied in the course of a ten-day HBO therapy (2.5 atmospheres absolute over a daily period of 90 min). Monocytes and lymphocytes of 30 patients with acute hearing loss were determined by flow cytometry before, throughout and after HBO therapy using monoclonal antibodies to CD3, **CD4**, **CD8**, CD14, CD25, CD45 and HLA-DR. Statistical analysis was made by ANOVA (analysis of variance). RESULTS: The relative percentage of CD3+, **CD4+**, **CD8+**, CD25+, CD14+, and HLA-DR+ cells remained unchanged during the course of and after HBO therapy. CONCLUSIONS: We conclude that repetitive exposure to hyperoxia does not influence human monocyte and lymphocyte functions in contrast to experimental data.
Record Date Created: 20020214
Record Date Completed: 20020402

6/7/7 (Item 7 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

13023883 **PMID:** 11163089
Role of CD4+ regulatory T cells in hyperbaric oxygen-mediated immune nonresponsiveness.

MacKenzie D A; Sollinger H W; Hullett D A
Department of Surgery, University of Wisconsin Hospitals and Clinics, Madison, WI 53792, USA. macken@surgery.wisc.edu
Human immunology (United States) Dec 2000 , 61 (12) p1320-31 , **ISSN:** 0198-8859--Print **Journal Code:** 8010936
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We have previously shown that **hyperbaric** oxygen culture (HOC [95% O(2), 5% CO(2), 25 psi]) is an effective pretransplant tissue-modification technique that results in long-term allograft survival and the induction of systemic immune tolerance in a murine model. Here we address the immune modulatory effects of HOC-treatment of human immune responses using the in vitro mixed lymphocyte reaction (MLR). Pretreatment of allogeneic stimulator cells

with HOC results in abrogation of cytotoxic T lymphocyte (CTL) activity, proliferative responses, and IFN gamma production in a 7-day MLR. These responses can be restored either by the addition of IFN gamma or IL-2 on day 0, or by blocking the activity of IL-4 and IL-10. The addition of IL-2 on day 4 does not restore allospecific CTL activity. The failure of HOC-treated cells to induce allospecific CTL is not due to the induction of anergy, demonstrated by the failure to restore responses after restimulation with allogeneic cells in the presence of IL-2. Removal of **CD4**(+) cells prior to restimulation, results in restoration of CTL activity in MLR cultures restimulated with HOC-treated allogeneic cells. These results suggest that HOC-induced immune nonresponsiveness is mediated by the development of **CD4**(+) regulatory cells in a Th2-type environment.
Record Date Created: 20010222
Record Date Completed: 20010607

6/7/8 (Item 8 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

12864148 **PMID:** 10985915
HIV: reactive oxygen species, enveloped viruses and hyperbaric oxygen.

Baugh M A
BaroAntiviral, San Diego, California 92103, USA.
Medical hypotheses (SCOTLAND) Sep 2000 , 55 (3) p232-8 , **ISSN:** 0306-9877--Print **Journal Code:** 7505668
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
This paper demonstrates that there are many examples in the literature of contradictory data concerning reactive oxygen intermediates (ROIs), responsible for producing cellular oxidative stress (OS), and their enhancement or diminution of viral replication. Nevertheless, ROIs repeatedly have been shown to be virucidal against enveloped-viruses, like the **human immunodeficiency virus** (**HIV**). **Hyperbaric** oxygen therapy (HBOT) increases the production of ROIs throughout the body, leaving no safe harbor for the virus to hide outside the genome. This technique already has been tried on **acquired immune deficiency** syndrome (**AIDS**) patients, with exciting results. Historically, the biggest setback to demonstrating HBO's antiviral effects has been the investigator's folly of studying non-enveloped viruses or failing to initiate ROI production. ROIs specifically attack areas of unsaturation occurring in the polyunsaturated fatty acids of cell membranes and viral envelopes. Moreover, it consistently has been shown that a peroxidized viral envelope breaches, and a breached viral envelope causes viral disintegration. (59 Refs.)
Record Date Created: 20001108
Record Date Completed: 20001108

6/7/9 (Item 9 from file: 155)
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

12717426 **PMID:** 10813438

Hyperbaric stress during saturation diving induces lymphocyte subset changes and heat shock protein expression.

Matsuo H; Shinomiya N; Suzuki S
Department of Microbiology, National Defense Medical College, Tokorozawa, Japan.
Undersea & hyperbaric medicine - journal of the Undersea and Hyperbaric Medical Society, Inc (UNITED STATES) Spring 2000 , 27 (1) p37-41 , **ISSN:** 1066-2936--Print **Journal Code:** 9312954
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
To clarify the cellular responses and biochemical markers of **hyperbaric** stress, we investigated heat shock protein (hsp) expression and subset changes of human peripheral blood lymphocytes during saturation diving. Five healthy male subjects underwent a 39-day saturation dive to the maximal storage pressure of 4.1 MPa [400 meters of sea water (msw)]. During the saturation dive, lymphocyte subset changes were detected using a flow cytometer, and increased expressions of hsp 72/73 and hsp 27 were observed by Western blot analysis. Lymphocyte subset changes included a decrease in **CD4**:**CD8** ratio and in the fraction of **CD4** + **T cells** as well as an increase in NK cells, especially during the 400-msw bottom phase. An increased expression of hsp 27 compared to hsp 72/73 was obvious, especially during the hold period at 100 msw. These results suggest that changes in lymphocyte subsets and hsp expression are useful markers for stress responses during saturation diving. These changes may also be useful for testing the barotolerance of divers for saturation diving.
Record Date Created: 20000522
Record Date Completed: 20000522

6/7/13 (Item 13 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

12546057 **PMID:** 10491802
A review of fatigue in people with HIV infection.

Barroso J
University of North Carolina at Chapel Hill, School of Nursing, USA.
Journal of the Association of Nurses in AIDS Care - JANAC (UNITED STATES) Sep-Oct 1999 , 10 (5) p42-9 , **ISSN:** 1055-3290--Print **Journal Code:** 9111870
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Fatigue is often cited by clinicians as a debilitating symptom suffered by the many who are infected with **HIV**. This article provides a review of **HIV**-related fatigue, including research on possible physiological causes such as anemia, **CD4** count, impaired liver function, impaired thyroid function, and cortisol abnormalities. Psychological causes of fatigue, particularly depression, are reviewed as well. Measurement issues, such as the use of inappropriate tools, the problem of measuring the presence or absence of fatigue, and the use of tools developed for other groups of patients,

are reviewed. The need for a comprehensive fatigue tool that is appropriate for people with **HIV** is discussed. Current treatment research, including thyroid replacement, **hyperbaric** oxygen, and dextroamphetamine, is presented. Finally, the implications for further research, including the need for qualitative studies to learn more about the phenomenon, develop an instrument to measure fatigue, and examine variables together to get a complete picture of this complex concept, are reviewed. (60 Refs.)
Record Date Created: 19991029
Record Date Completed: 19991029

6/7/14 (Item 14 from file: 155)
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

12417264 **PMID:** 10353182
Immune function in hyperbaric environments, diving, and decompression.

Brenner I; Shephard R J; Shek P N
Defence & Civil Institute of Environmental Medicine, Toronto, Canada.
Undersea & hyperbaric medicine - journal of the Undersea and Hyperbaric Medical Society, Inc (UNITED STATES) Spring 1999 , 26 (1) p27-39 , **ISSN:** 1066-2936--Print **Journal Code:** 9312954
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The purpose of this review is to examine the influence of exposure to **hyperbaric** oxygen (HBO2) deep diving, and decompression on various facets of the immune response. Potential changes during exposure include a decrease in the **CD4+:CD8+** ratio, a decreased proliferation of lymphocytes, and an activation of neutrophils with migration to regions of high oxygen pressure. There may also be an activation of the complement cascade during decompression. Clinical indicators of overall immune suppression include a decreased response to antigens, a weakening of autoimmune responses, and a slower rejection of allografts. In professional divers, immune changes are at least partially offset by acclimatization, and seem to have little clinical significance. However, patients receiving HBO2 are a more vulnerable group; in their case, exposure may impair immune surveillance, and a careful monitoring of immune function may be important to the success of treatment. (115 Refs.)
Record Date Created: 19990608
Record Date Completed: 19990608

6/7/22 (Item 22 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

11818947 **PMID:** 9640906
The effectiveness of intermittent hyperbaric oxygen in relieving drug-induced HIV-associated neuropathy.

Jordan W C

Department of Internal Medicine, Charles R. Drew University of Medicine and Science, King-Drew Medical Center, Los Angeles, California 90059, USA.
Journal of the National Medical Association (UNITED STATES) Jun 1998 , 90 (6) p355-8 , **ISSN:** 0027-9684--Print **Journal Code:** 7503090
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
This 3-month study evaluated the effects of **hyperbaric** oxygen on drug-induced neuropathies in 22 patients with **human immunodeficiency virus**. All patients included in the study had been taking an antiretroviral medication for at least 12 months and had subjective symptoms of numbness or tingling, lethargy, and a decrease in deep tendon reflex. Patients with an active substance abuse history or Kaposi's sarcoma were excluded. Of the 20 patients who completed the series, 17 had significant improvement, 2 had a demyelinating disorder that may have affected the outcome, and 1 had no change.
Record Date Created: 19980716
Record Date Completed: 19980716

6/7/24 (Item 24 from file: 155)

11540623 **PMID:** 9373215
Differential sensitivities to hyperbaric oxygen of lymphocyte subpopulations of normal and autoimmune mice.

Xu X; Yi H; Kato M; Suzuki H; Kobayashi S; Takahashi H; Nakashima I
Department of Hyperbaric Medicine, Nagoya University School of Medicine, Japan.
Immunology letters (NETHERLANDS) Nov 1997 , 59 (2) p79-84 , **ISSN:** 0165-2478--Print **Journal Code:** 7910006
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We studied the effect of exposure to **hyperbaric** oxygen (HBO): 2.8 atm absolute 100% oxygen for 4 h daily over 3-7 days, on the immune system of normal (BALB/c and MRL- +/+) and autoimmune MRL-lpr/lpr) mice. In HBO exposed BALB/c mice, we observed a remarkable decrease in the cell population of the spleen and thymus. We found that the sensitivity to HBO varied among subpopulations of lymphocytes. For example, **CD4+ CD8+** double positive cells in the thymus and B220+ B cells in the spleen were more sensitive than **CD4+** or **CD8+** single positive **T cells** in the thymus, and Thy-1+ **T cells** in the spleen, respectively. Accordingly, despite the decrease in total cell number in the spleen, the proliferative response of **T cells** from the spleen to Con A was not impaired in the HBO exposed mice. Exposure of MRL-lpr/lpr mice to HBO caused a marked reduction of weight and cell population of the otherwise enlarged spleen and lymph nodes, and amongst others of percentages of B220+Thy-1+ double positive abnormal cells. These results suggest the HBO therapy may be applicable for the treatment of some autoimmune diseases.
Record Date Created: 19980123

Record Date Completed: 19980123

6/7/27 (Item 27 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

11007556 **PMID:** 8825180
HIV antiviral effects of hyperbaric oxygen therapy.

Reillo M R; Altieri R J
Lifeforce Hyperbaric Medical Clinic, Baltimore, MD, USA.
Journal of the Association of Nurses in AIDS Care - JANAC (UNITED STATES) Jan-Feb 1996 , 7 (1) p43-5 ,
ISSN: 1055-3290--Print **Journal Code:** 9111870
Publishing Model Print
Document type: Clinical Trial; In Vitro; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Researchers have speculated that **hyperbaric** oxygen (HBO) therapy has an antiviral effect in **HIV** infection. To determine HBO's antiviral effect, the authors performed ex vivo and in vivo quantitative assays on **HIV**-infected plasma and peripheral blood mononuclear cells (PBMCs) at baseline and after treatment. The authors also HBO-treated uninfected PBMCs and then exposed them to **HIV** at ambient pressure. **HIV viral load** was decreased in the infected cells, and few viruses entered uninfected PBMCs exposed to HBO. The results of this study support the theory that HBO has an antiviral effect.
Record Date Created: 19961113
Record Date Completed: 19961113

6/7/29 (Item 29 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

10444355 **PMID:** 7734723
Let's push for HBO therapy.

Smith M E
Journal of the Association of Nurses in AIDS Care - JANAC (UNITED STATES) Jan-Feb 1995 , 6 (1) p53-4 ,
ISSN: 1055-3290--Print **Journal Code:** 9111870
Publishing Model Print
Document type: Letter
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Record Date Created: 19950608

Record Date Completed: 19950608

6/7/30 (Item 30 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

10316191 **PMID:** 7868455
Effect of hyperbaric oxygen on tissue distribution of mononuclear cell subsets in the rat.

Bitterman N; Lahat N; Rosenwald T; Kinarty A; Melamed Y; Bitterman H
Israel Naval Medical Institute, Haifa, Israel.
Journal of applied physiology (Bethesda, Md. - 1985) (UNITED STATES) Nov 1994 , 77 (5) p2355-9 , **ISSN:** 8750-7587--Print **Journal Code:** 8502536
Publishing Model Print
Document type: Comparative Study; Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
In a previous study we found a significant temporary decrease in the ratio of **CD4/CD8** (helper, inducer/suppressor, cytotoxic) T lymphocytes in the peripheral blood of healthy human volunteers after exposure to a single commonly used profile of **hyperbaric** oxygen (HBO). The transient nature of the changes suggested redistribution of **T-cell** subsets. The purpose of the present study was to verify such a redistribution and to locate possible target organs in an animal model. A single exposure of rats to HBO (0.28 MPa) induced a highly significant rapid decrease in the **CD4/CD8** ratio in peripheral blood count ($P < 0.0001$), confirming our previous findings in humans. HBO also induced a significant increase in the **CD4/CD8** ratio in the lungs and lymph nodes ($P < 0.001$) and a significant decrease in the ratio in the spleen ($P < 0.01$). Furthermore, exposure to HBO induced a significant increase in **T cells** bearing surface interleukin-2 receptors in the blood, spleen, lungs, and lymph glands ($P < 0.001$) and a significant decrease in **T cells** expressing alpha beta-receptors in the lungs ($P < 0.001$) and lymph glands ($P < 0.05$). Our findings suggest rapid **T-cell** activation after a brief exposure to HBO, with shifts of **CD4** and **CD8** subsets and variations in **T-cell** receptor type. These rapid changes in the parameters of cell-mediated immunity may represent the activation of protective mechanisms against the toxic effect of oxygen or the early stages of pulmonary oxygen toxicity.
Record Date Created: 19950330
Record Date Completed: 19950330

6/7/31 (Item 31 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

10267431 **PMID:** 11362128
Hyperbaric oxygen therapy to relieve chronic fatigue associated with HIV/AIDS [letter]

Reillo M; Altieri R; Neubauer R
AIDS patient care (UNITED STATES) Jun 1994 , 8 (3) p106-7 , **ISSN:** 0893-5068--Print **Journal Code:** 8710781

Publishing Model Print
Document type: In Vitro; Journal Article; Letter
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Record Date Created: 19950202
Record Date Completed: 19950202

6/7/32 (Item 32 from file: 155)
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

10207057 **PMID:** 7950801
Effects of deep saturation diving on the lymphocyte subsets of healthy divers.

Shinomiya N; Suzuki S; Hashimoto A; Oiwa H
Department of Biology, National Defense Medical College, Tokorozawa, Japan.
Undersea & hyperbaric medicine - journal of the Undersea and Hyperbaric Medical Society, Inc (UNITED STATES) Sep 1994 , 21 (3) p277-86 , **ISSN:** 1066-2936--Print **Journal Code:** 9312954
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We examined the effect of deep saturation diving on the host defense mechanisms of five healthy volunteers using fluorescein-dye-conjugated monoclonal antibodies. Six divers engaged in a 440-m saturation diving simulation with total **hyperbaric** exposure of 30 days; five served as subjects. Change in the expression of surface molecules on the lymphocytes was analyzed during that period. Blood samples were serially taken on Days 4, 6, 8, 15, 22, 29, and after surfacing. The total number of lymphocytes showed no remarkable change. However, the fraction of T (CD3+) cells decreased from 68.0 +/- 3.3% to 55.8 +/- 5.8% (Day 8), and B cells increased reciprocally. In these **T cells**, the **CD4**: **CD8** ratio (normally > 1.0) became less than 1.0 during compression and thereafter. In spite of the prophylactic use of anti-external otitis agents, one of the divers revealed a remarkable growth of Pseudomonas in the external auditory meatus, showing a high level of blood endotoxin (10.2 pg/ml). These results suggest that decrease in **CD4**+ fraction of T lymphocytes might explain in part the decreased resistance of divers to infective microorganisms in deep saturation diving.
Record Date Created: 19941222
Record Date Completed: 19941222

6/7/35 (Item 35 from file: 155)
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

09791203 **PMID:** 8401149
Effect of a single exposure to hyperbaric oxygen on blood mononuclear cells in human subjects.

Bitterman N; Bitterman H; Kinarty A; Melamed Y; Lahat N
Israeli Naval Hyperbaric Institute, Haifa.
Undersea & hyperbaric medicine - journal of the Undersea and Hyperbaric Medical Society, Inc (UNITED STATES) Sep 1993 , 20 (3) p197-204 , **ISSN:** 1066-2936--Print **Journal Code:** 9312954
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We studied the effect of a single exposure to a therapeutic profile of **hyperbaric** oxygen on blood mononuclear cell subset. Twenty healthy volunteers were exposed to 0.28 MPa for 90 min. Thirteen breathed pure oxygen and seven were control subjects exposed to compressed air at the same pressure. Venous blood samples were drawn before HBO exposure, immediately on exit from the chamber, and 24 h later. Immediately after the exposure, a significant increase was observed in the percentage and absolute number of **CD8** (suppressor/cytotoxic) **T cells**, with a concomitant decrease in the **CD4** (helper/inducer) **T cells**. These changes resulted in a decreased **CD4**:**CD8** ratio. A rise was also observed in the number of HLA-DR antigen-bearing cells, with a transient increase in monocytes. There was no change in the total count and percentage of **T cells** (CD3), B cells, and NK cells. Twenty-four hours after HBO exposure there was a partial reversal of the decrease in the mean **CD4**:**CD8** ratio, but it was still significantly lower than preexposure values. The fast reversibility of the change in the **CD4**:**CD8** ratio suggests specific HBO-induced shifts and sequestration of **T-cell** subpopulations.
Record Date Created: 19931025
Record Date Completed: 19931025

6/7/36 (Item 36 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

09789962 **PMID:** 8400158
Hyperbaric oxygen therapy for the treatment of debilitating fatigue associated with HIV/AIDS.

Reillo M R
Maryland Medical Center, Bethesda.
Journal of the Association of Nurses in AIDS Care - JANAC (UNITED STATES) Jul-Sep 1993 , 4 (3) p33-8 , **ISSN:** 1055-3290--Print **Journal Code:** 9111870
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Twenty-five **HIV**-infected patients underwent **hyperbaric** oxygen therapy to determine the treatment's effectiveness in relieving the debilitating fatigue associated with **HIV/AIDS** and its effect on immunologic function. Patients were treated with 100% oxygen at two atmospheres of absolute pressure three times per week for two months, then two times per week on an ongoing basis. Laboratory markers were assessed monthly. All patients experienced relief of debilitating fatigue within one month of **hyperbaric** oxygen therapy. It was concluded that **hyperbaric** oxygen therapy is an effective adjunctive treatment in the medical management of **HIV/AIDS**. Laboratory markers, clinical significance, nursing implications, and cost-effectiveness of **hyperbaric** oxygen therapy are discussed.

Record Date Created: 19931124
Record Date Completed: 19931124

6/7/38 (Item 38 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options Blackwell Publishing
MEDLINE(R)

09015311 **PMID:** 1934599
Suppressive effect of hyperbaric oxygenation on immune responses of normal and autoimmune mice.

Saito K; Tanaka Y; Ota T; Eto S; Yamashita U
First Department of Internal Medicine, University of Occupational and Environmental Health, School of Medicine, Kitakyushi, Japan.
Clinical and experimental immunology (ENGLAND) Nov 1991 , 86 (2) p322-7 , **ISSN:** 0009-9104--Print
Journal Code: 0057202
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We studied the effect of **hyperbaric** oxygenation (HBO) on immune responses in normal and autoimmune mice. Mice were exposed to HBO in an animal chamber at a pressure of 252.5 kPa for 1 h and once a day for 5 days. The immunization of C3H/He mice with sheep erythrocytes induced marked anti-sheep erythrocyte antibody response on day 7. However, this response was markedly suppressed in HBO-treated mice. The suppression is dependent on the duration of HBO and it works on the early and the late stage of antibody responses. HBO suppresses the development of both sheep erythrocyte-specific B cells and helper **T cells** after the immunization. Then, we tried to expose autoimmune mice to HBO. Spontaneous immunoglobulin production of NZB and MRL/lpr spleen cells was also significantly suppressed by HBO. Furthermore, long term HBO exposure results in the suppression of the development of autoimmune symptoms such as proteinuria, facial erythema and lymphadenopathy in MRL/lpr mice. All these results suggest that HBO is applicable for the treatment of autoimmune diseases.
Record Date Created: 19911223
Record Date Completed: 19911223

6/7/41 (Item 41 from file: 155)
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

07628477 **PMID:** 3503521
May hyperbaric oxygenation be useful to patients with AIDS?

Bocci V
Journal of biological regulators and homeostatic agents (UNITED STATES) Oct-Dec 1987 , 1 (4) p201 , **ISSN:** 0393-974X--Print **Journal Code:** 8809253
Publishing Model Print

Document type: Letter
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Record Date Created: 19881116
Record Date Completed: 19881116

6/7/46 (Item 4 from file: 5)
Fulltext available through: SpringerLink USPTO Full Text Retrieval Options
Biosis Previews(R)

14702489 **Biosis No.:** 199800496736
Effect of hypobaric hypoxia on immune function in albino rats

Author: Sairam M (Reprint); Sharma S K; Dipti P; Pauline T; Kain A K; Mongia S S; Bansal Anju; Patra B D; Ilavazhagan G; Devendra K; Selvamurthy W
Author Address: Defence Inst. Physiol. Allied Sci., Lucknow Rd., Timarpur, Delhi-110054, India**India
Journal: International Journal of Biometeorology 42 (1): p 55-59 Aug., 1998 1998
Medium: print
ISSN: 0020-7128
Document Type: Article
Record Type: Abstract
Language: English

Abstract: The effect of exposure to hypoxia on macrophage activity, lymphocyte function and oxidative stress was investigated. Hypoxia enhanced peritoneal macrophage activity as revealed by enhanced phagocytosis and free radical production. There was no significant change in antibody titres to sheep red blood cells in either serum or spleen during hypoxia. However, there was a considerable reduction in the delayed-type hypersensitivity response to sheep red blood cells, indicating the impairment of **T-cell** activity. Hypoxia decreased the blood glutathione (reduced) level and increased plasma malondialdehyde by a factor of about 2. It is therefore speculated that hypoxia imposes an oxidative stress leading to decreased **T-cell** activity.

6/7/49 (Item 7 from file: 5)
Biosis Previews(R)

12467815 **Biosis No.:** 199497489100
The effect of hyperbaric oxygenation (HBO) on HIV-associated chronic fatigue

Book Title: Tenth International Conference on **AIDS** and the International Conference on STD, Vol. 2; The global challenge of **AIDS**: Together for the future
Author: Steinhart Corklin R (Reprint); Montoya I; Kaiser M R
Book Author/editor: TENTH INTERNATIONAL CONFERENCE ON AIDS INTERNATIONAL CONFERENCE ON STD
Author Address: Mercy Hosp., Miami, FL 33133, USA**USA
p 2) 220 1994

Book Publisher: Tenth International Conference on AIDS {a}, Yokohama, Japan
Conference/Meeting: Meeting Yokohama, Japan August 7-12, 1994; 19940807
Document Type: Meeting; Meeting Abstract; Meeting Poster
Record Type: Citation
Language: English

6/7/50 (Item 8 from file: 5)
Biosis Previews(R)

12458319 **Biosis No.:** 199497479604
Trials of elaboration more universal AIDS therapy: Anti-HIV laser traps for blood, virucidal hyperbaric gas, tissue pH modifiers

Book Title: Tenth International Conference on **AIDS** and the International Conference on STD, Vol. 1; The global challenge of **AIDS**: Together for the future
Author: Vasilionkaitis Viktoras
Book Author/editor: TENTH INTERNATIONAL CONFERENCE ON AIDS INTERNATIONAL CONFERENCE ON STD
Author Address: Res. Lab. Clin. Biomech. Modern Treatment Methods, Vilnius, Lithuania** Lithuania
p 1) 205 1994
Book Publisher: Tenth International Conference on AIDS {a}, Yokohama, Japan
Conference/Meeting: Meeting Yokohama, Japan August 7-12, 1994; 19940807
Document Type: Meeting; Meeting Abstract; Meeting Poster
Record Type: Citation
Language: English

6/7/53 (Item 11 from file: 5)
Biosis Previews(R)

11134290 **Biosis No.:** 199243102881
HIV-RELATED FATIGUE AND HYPERBARIC OXYGEN THERAPY

Book Title: VIII INTERNATIONAL CONFERENCE ON **AIDS** AND THE III STD WORLD CONGRESS. PUBLISHED ABSTRACTS SUBMITTED TO THE VIII INTERNATIONAL CONFERENCE ON **AIDS** AND THE III STD WORLD CONGRESS; HARVARD-AMSTERDAM CONFERENCE, AMSTERDAM, NETHERLANDS, JULY 19-24, 1992. 220P. VIII INTERNATIONAL CONGRESS AND THE III STD WORLD CONGRESS: AMSTERDAM, NETHERLANDS. PAPER
Author: REILLO M (Reprint); MYERS R A M
Author Address: MARYLAND INST EMERGENCY MED SERV SYSTEMS, USA**USA
p 126 1992
Document Type: Meeting
Record Type: Citation
Language: ENGLISH

6/7/54 (Item 12 from file: 5)
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10292165 **Biosis No.:** 199090076644
THE USE OF HYPERBARIC OXYGENATION IN THE TREATMENT OF VIRAL HEPATITIS B AND THE BLOOD LEUKOCYTE REACTION

Author: GABRILOVICH D I (Reprint); MUSAROV A L; ZMYZGOVA A V; SHALYGINA N B
Author Address: CENT RES INST EPIDEMIOL, MINIST HEALTH USSR, MOSCOW, USSR**USSR
Journal: Terapevticheskii Arkhiv 62 (1): p 82-86 1990
ISSN: 0040-3660
Document Type: Article
Record Type: Abstract
Language: RUSSIAN

Abstract: A total of 75 patients with virus hepatitis B of medium gravity were examined for the effect of HBO on the clinical course of the disease and blood leukocyte reaction. This reaction was tested on the basis of a complex of rosette-forming and cytochemical tests. HBO was found to produce a favourable effect if used at the early stages of the treatment (the first week of hospitalization). The effect consisted in significant reduction of the rate of exacerbations and residual phenomena. HBO provoked a decrease in the content of T and B lymphocytes by the 10th session of the treatment. A close relationship was revealed between HBO efficacy and the initial level of functional metabolic activity of leukocytes. The use of HBO was always accompanied by the rise of that activity during the treatment. The use of HBO at later times of the treatment (weeks 4-5) did not produce any well-defined clinical effect. Thus, HBO (8-10) sessions, pressure 1.5 absolute atmosphere, exposure (45 min) may be indicated as a prophylactic measure in respect of an unfavorable disease course with regard to the patients' selection on the basis of a complex of cytochemical tests.

6/7/62 (Item 4 from file: 73)
Fulltext available through: USPTO Full Text Retrieval Options
EMBASE

11500045 **EMBASE No:** 2002071679
Effects of repetitive exposure to hyperbaric oxygen (HBO) on leukocyte function

EINFLUSS DER HYPERBAREN SAUERSTOFFTHERAPIE AUF DIE FUNKTION HUMANER LEUKOZYTEN
Jaeger K.; Juttner B.; Sommer C.; Scheinichen D.; Ruschulte H.; Franko W.; Heine J.
Dr. K. Jaeger, Medizinische Hochschule Hannover, Zentrum Anasthesiologie, Cart-Neuberg-Strasse 1, 30625 Hannover Germany
Author Email: jaeger.karsten@mh-hannover.de
Anasthesiologie Intensivmedizin Notfallmedizin Schmerztherapie (ANASTHESIOL. INTENSIVMED. NOTF.MED. SCHMERZTHER.) (Germany) 2002 , 37/1 (24-28)
CODEN: AISTE **ISSN:** 0939-2661
Document Type: Journal ; Article

Language: GERMAN **Summary Language:** ENGLISH; GERMAN
Number Of References: 22

Objective: Despite favourable clinical data on the successful use of **hyperbaric** oxygen (HBO), only limited investigations have been carried out to date regarding the influence of hyperoxia on leukocyte function. In a murine model, **CD4+ T-cell** population remained unchanged after repeated HBO exposure, however **CD8+** cells were found to be increased. The aim of this study was to investigate whether repetitive exposure to hyperoxia would affect human monocyte and lymphocyte function. Methods: Methods: After Ethics Committee approval the effects of elevated partial oxygen pressure were studied in the course of a ten-day HBO therapy (2.5 atmospheres absolute over a daily period of 90 min). Monocytes and lymphocytes of 30 patients with acute hearing loss were determined by flow cytometry before, throughout and after HBO therapy using monoclonal antibodies to CD3, **CD4**, **CD8**, CD14, CD25, CD45 and HLA-DR. Statistical analysis was made by ANOVA (analysis of variance). Results: The relative percentage of CD3+, **CD4+**, **CD8+**, CD25+, CD14+, and HLA-DR+ cells remained unchanged during the course of and after HBO therapy. Conclusions: We conclude that repetitive exposure to hyperoxia does not influence human monocyte and lymphocyte functions in contrast to experimental data.

6/7/64 (Item 6 from file: 73)
Fulltext available through: USPTO Full Text Retrieval Options
EMBASE

11204726 **EMBASE No:** 2001220022
Hyperbaric oxygen therapy in infectious disease

INFEKSIYON HASTALIKLARINDA HIPERBARIK OKSIJEN TEDAVISININ YERI
Pahsa A.; Ozsoy M.F.; Oncul O.; Erdem H.; Elbuken E.
Dr. A. Pahsa, Infeksiyon Hast. Servisi, Haydarpasa Egitim Hastanesi, GATA, Istanbul Turkey
SENDROM (SENDROM) (Turkey) 2001 , 13/2 (84-88)
CODEN: SENDE **ISSN:** 1016-5134
Document Type: Journal ; Review
Language: TURKISH **Summary Language:** ENGLISH
Number Of References: 37

This review will discuss the basic mechanisms of action of oxygen in infectious diseases. Hyperoxia and **hyperbaric** oxygen (HBO) inhibit microbial growth by inhibiting various microbial metabolic reactions and by increasing the levels of oxygen in tissues. Hyperoxia and HBO by themselves exert direct bacteriostatic and bactericidal effects on various microorganisms (bacteria, fungi, parasites), but their effect on viral infections need to be searched. Moreover Its efficacy in **HIV** infections receives much attention. It can be said that HBO is a unique anti-bacterial agent.

6/7/96 (Item 1 from file: 164)
Allied & Complementary Medicine

00150550 **The British Library:** 9111411

AIDS, cancer cured by hyper-oxygenation

Forest W
Townsend Lett , Volume: , Issue: , Page: 228-38
1992

6/7/97 (Item 1 from file: 91)
MANTIS(TM)

00035796
The Effect of Hyperbaric Oxygenation (HBO) on HIV-Associated Chronic Fatigue and Peripheral Neuropathy: A Pilot Study
STEINHART, CR.; MONTOYA, I.; JACOBSEN, DA.; STEINHART, PS.; STEIN-FERRER, M.; KAISER, MR.; ALTERNATIVE & COMPLEMENTARY THERAPIES. July 1996 (19960700), Vol 2, pp 236-40
ISSN: 1076-2809


```
? d s
Set     Items   Description
S1       4012   S HYPERBARIC
```

```
? limitall /s1
LIMITALL started
S2        291   S HIV OR AIDS OR HUMAN()IMMUNODEFICIENCY()VIRUS? OR
HUMAN()IMMUNO()DEFICIENCY()VIRUS? OR HUMAN()IMMUNE()DEFICIENCY()VIRUS? OR
HUMAN()IMMUNEDEFICIENCY()VIRUS? OR ACQUIRED()IMMUNE()DEFICIENCY OR
ACQUIRED()IMMUNEDEFICIENCY OR ACQUIRED()IMMUNO()DEFICIENCY OR ACQUIRED()IMMUNODEFICIENCY
OR VIRAL()LOAD? OR CD4 OR CD8 OR T()CELL? ?
S3        291   S S1 AND S2
S4        162   RD S3  (unique items)
S5       2161   S S1 (1N) (THERAPY? OR CHAMBER? OR TREATMENT? OR OXYGENATION? OR
PRESSURE? OR MEDICINE?)
S6        219   S S5 AND S2
S7        111   RD S6  (unique items)
S8         32   S S7/2004:2007
S9         79   S S7 NOT S8
```

9/3,K/30 (Item 1 from file: 636)
Gale Group Newsletter DB(TM)

04622874 **Supplier Number:** 61373606 **(USE FORMAT 7 FOR FULLTEXT)**

MEDICAL DEVICES.
Warning Letter Bulletin , v 8 , n 6 , p NA
March 27 , 2000
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 876

...palsy, sickle-cell anemia, organic brain syndrome, Crohn's disease, spinal cord contusion, fibromyalgia and **HIV**-related neuropathies. The agency noted that it had instructed the firm not to make use of claims appearing on the Web site of the American College of **Hyperbaric Medicine**. Approved claims for the device included air or gas embolism, carbon monoxide poisoning, osteomyelitis and...

9/3,K/32 (Item 3 from file: 636)
Gale Group Newsletter DB(TM)

02862966 **Supplier Number:** 45808007 **(USE FORMAT 7 FOR FULLTEXT)**

MEDICAL DEVICES: Lifeforce
Warning Letter Bulletin , v 3 , n 18 , p N/A
Sept 25 , 1995
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 113

Baltimore, MD, Aug. 21 (Office of Compliance). FDA objected to the promotion of the **hyperbaric** oxygen **chamber**, manufactured by Reimer's Engineering, for treatment of **HIV**-related conditions for which the device had not been cleared. The device was declared misbranded ...

9/3,K/33 (Item 4 from file: 636)
Gale Group Newsletter DB(TM)

02539397 **Supplier Number:** 45119338 **(USE FORMAT 7 FOR FULLTEXT)**

MEDICAL DEVICES: Reimers Engineering
Warning Letter Bulletin , v 2 , n 21 , p N/A
Nov 7 , 1994
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 121

Alexandria, VA, Oct. 19, Baltimore District. FDA determined that **hyperbaric** oxygen **therapy** chambers were misbranded due to failure to list and submit a 510(k), false or misleading claims for **AIDS** therapy and lack of adequate directions for use. The agency also cited indication of conditions for which **hyperbaric** oxygen **treatment** is not approved. The product also was deemed adulterated as a Class III device lacking...

9/3,K/35 (Item 1 from file: 149)
TGG Health&Wellness DB(SM)

02947098 **Supplier Number:** 109738907 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Necrotizing soft tissue infections: a guide to early diagnosis and initial therapy.

Majeski, James A.; John, Joseph F., Jr.
Southern Medical Journal , 96 , 9 , 900(6)
Sept ,
2003
Publication Format: Magazine/Journal
ISSN: 0038-4348
Language: English
Record Type: Fulltext **Target Audience:** Professional
Word Count: 3975 **Line Count:** 00393

...diabetes mellitus, hypertension, congestive heart failure, obesity, renal insufficiency, cancer, malnutrition, arteriosclerosis, alcoholism, autoimmune disease, **acquired immunodeficiency** syndrome, and immunosuppression, as well as with patients older than 60 years of age, is ...

...IV penicillin should be administered; clindamycin or metronidazole is substituted for patients with penicillin allergy. **Hyperbaric oxygenation** should be administered alter surgery to the patient with clostridial gangrene, because it is bacteriostatic...

...necrotic tissue left after debridement of clostridial gangrene reduces or neutralizes the beneficial effect of **hyperbaric oxygenation. Hyperbaric oxygenation** has been shown in nonclostridial soft tissue NIs to only shorten the time until wound...

9/3,K/57 (Item 23 from file: 149)
TGG Health&Wellness DB(SM)

01940386 **Supplier Number:** 65864012 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Hyperbaric Oxygen Therapy in the Care of Infectious Disease.(Brief Article)

SADOVSKY, RICHARD
American Family Physician , 62 , 1 , 206
July 1 ,
2000
Document Type: Brief Article **Publication Format:** Magazine/Journal; Refereed
ISSN: 0002-838X
Language: English
Record Type: Fulltext **Target Audience:** Professional
Word Count: 480 **Line Count:** 00044
Hyperbaric Oxygen Therapy in the Care of Infectious Disease.(Brief Article)

...expanding. New areas of research include HBO in the treatment of patients with mucormycosis and **human immunodeficiency virus**-related fatigue. Further study is needed to determine the full potential of HBO.

RICHARD SADOVSKY...

Descriptors:
Hyperbaric oxygenation--

9/3,K/65 (Item 31 from file: 149)
TGG Health&Wellness DB(SM)

01662441 **Supplier Number:** 18958904 (USE FORMAT 7 OR 9 FOR FULL TEXT)
HIV antiviral effects of hyperbaric oxygen therapy.

Reillo, Michelle R.; Altieri, Raymond J.
Journal of the Association of Nurses in AIDS Care , v7 , n1 , p43(3)
Jan-Feb ,
1996
Publication Format: Magazine/Journal
ISSN: 1055-3290
Language: English
Record Type: Fulltext; Abstract **Target Audience:** Professional
Word Count: 1041 **Line Count:** 00103
HIV antiviral effects of hyperbaric oxygen therapy.

Abstract: Hyperbaric oxygen (HBO) therapy may have an antiviral effect in HIV infection, a theory much disputed by experts. Ex vivo and in vivo analysis indicated that the viral load in infected plasma and blood cells decreased after HBO therapy. In addition, pre-treating cells...

Text:

Researchers have speculated that hyperbaric oxygen (HBO) therapy has an antiviral effect in **HIV** infection. To determine HBO's antiviral effect, the authors performed ex vivo and in vivo quantitative assays on **HIV**-infected plasma and peripheral blood mononuclear cells (PBMCs) at baseline and after treatment. The authors also HBO-treated uninfected PBMCs and then exposed them to **HIV** at ambient pressure. **HIV viral load** was decreased in the infected cells, and few viruses entered uninfected PBMCs exposed to HBO...

Key words: **HIV** infection, **hyperbaric** oxygen **therapy**, **viral load**

Scientists have worked toward the development of anti-**HIV** treatments that can act against the virus while sparing the patient from major toxic side effects. Unfortunately, drugs used to suppress **HIV** have proved damaging to the host body (Schoub, 1994). Because of the serious side effects and/or failure of these treatments, many persons with **HIV/AIDS** have sought adjunctive methods. Some PWAs use these interventions exclusively or in combination with conventional therapies (Nokes, Kendrew, & Longo, 1995).

Hyperbaric oxygen **therapy** has been documented to relieve the chronic, debilitating fatigue associated with **HIV**, without toxicity (Darko et al., 1992; Reillo, 1993). However, when some researchers speculate about HBO...

...and drug action" (Gottlieb, 1995, p. 5).

Evidence indicates that HBO offers subjective relief from **HIV** -related debilitation. Theoretically, this correlates with HBO's antiviral effects on **HIV**.

Methods

The authors' purpose was to determine if HBO: (a) has an antiviral effect on **HIV**-infected plasma and peripheral blood nuclear cells (PBMCs) ex vivo and in vivo; and (b) makes target cells resistant to **HIV** invasion.

Ex Vivo

The authors conducted a series of ex vivo laboratory experiments using an animal **hyperbaric chamber**.

Experiment 1. Free infectious **HIV** was put in an isotonic solution and then placed in the chamber for 15 minutes...

...under pressure (2.5 ATA, 48 feet sea water (FSW). Duplicate quantitative assays revealed baseline **HIV** viral endpoints of 125 virons per 1 million cells.

Experiment 2. Specimens of uninfected target...

...HBO at 15-minute increments for up to 45 minutes and then exposed to infectious **HIV** at normal atmospheric pressure. Baseline endpoints were 125 and 625.

Experiment 3. **HIV**-infected plasma was treated in a **hyperbaric chamber** for 15-minutes at 48 FSW. Plasma viremia pretreatment endpoints were 125 and 125.

Experiment...

...1). Exposure to HBO for 45 minutes seemed to make target cells more resistant to **HIV** invasion.

Table...

...**HIV**_...5.

The results of the in vivo experiments seemed to indicate that HBO eliminated traceable **HIV** virus in the plasma of infected patients, even on a long-term basis and in...

...**HIV_CD4**_...**HIV**_...**CD4**_...and maintained their body weight.

Conclusions

These preliminary results indicate HBO's antiviral effect on **HIV** in the body and in the laboratory. Theoretically, this effect may be the result of biochemical inactivation of **HIV** and/or immune stimulation, which induces cytotoxic activity. Less virus in the plasma reduces the...

...and entry. This supposition is supported by decreased viral entry of a known amount of **HIV** when exposed to PBMC's treated with HBO.

These results underscore the need to research using each patient as his/her control, because **viral load** and clinical disease is variant. Such studies will establish HBO's role in **HIV** antiretroviral therapy.

References

Darko, D., & McCutchan, J. (1992). Fatigue, sleep disturbance, disability, and indices of progression of **HIV** infection. American Journal of Psychiatry, 149, 514-520.

Gottlieb, S. (1995). HbO and **HIV/AIDS**: Is there a rationale for its use? Pressure, 24(1), 5-6.

Nokes, K., Kendrew, J., & Longo, M. (1995). Alternative/complimentary therapies used by persons with **HIV** disease. JANAC, 6(4), 19-24.

Reillo, M. (1993). **Hyperbaric** oxygen **therapy** for the treatment of debilitating fatigue associated with **HIV/AIDS**. JANAC, 4( ), 33-38.

Schoub, B. (1994). The anti-**AIDS** drugs. In **AIDS** & **HIV** in perspective: A guide to understanding the virus and its consequences (pp. 154-181). Cambridge...

Descriptors:
Hyperbaric oxygenation--...

...**HIV** infection

9/3,K/66 (Item 32 from file: 149)
TGG Health&Wellness DB(SM)

01632730 **Supplier Number:** 18615523 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tales from the "O" zone. (Oxygenation Therapy: Healing or Hot Air?, part 2)

Green, Saul
Nutrition Forum , v13 , n3 , p25(4)
May-June ,
1996
Publication Format: Newsletter
ISSN: 0748-8165
Language: English
Record Type: Fulltext **Target Audience:** Consumer; Professional
Word Count: 2351 **Line Count:** 00199

(W)hile ozone can be used to treat a wide spectrum of conditions (including **AIDS**, allergies, arthritis, cancer, candida infection, bladder infections, gastrointestinal disorders, hepatitis, herpes, multiple sclerosis, parasitic conditions...

...temperature, it has a "half-life" of only 45 minutes under optimal conditions.

Ozone and **HIV**

Human immunodeficiency virus (**HIV**, formerly called HTLV-III) is the retrovirus that causes **AIDS**. Retroviruses are viruses that contain RNA and produce an enzyme wherewith viral DNA originates from the RNA. Many produce tumors. There are two strains of **HIV**: **HIV**-1 and **HIV**-2, which is rare in the United States. M.T.F. Carpendale, M.D., has stated that medical ozone can inactivate extracellular **HIV**-1 in certain tissue-culture fluids and can inhibit the virus without detriment to tissue-culture cells. He has cited published allegations that ozone benefits **AIDS** patients but has added: "Further experimentation and development of methods for use of ozone as a treatment of ARC/**AIDS** patients are still needed."

Another proponent of ozone therapy against **AIDS** is writer Ed McCabe,(2) In testimony before Senator Tom Harkin's Subcommittee of the...

...s effectiveness in vivo. McCabe further asserted: "Numerous U.S. physicians have converted hundreds of **AIDS** patients from **HIV** seropositive to **HIV** seronegative status using ozone." And he's said that the "medical establishment" is ignoring this "help...available to **AIDS** patients right now."

is ozone an effective anti-**HIV** medicine? In 1991, Wells and associates(1) reported that gaseous ozone inactivated **HIV**-1 in a culture medium from which all cells had been removed. Using increasing concentrations...

...and plasma in the culture medium also affected the rate and degree of inactivation of **HIV**-1 by ozone. The researchers concluded that, while ozone had utility in decontaminating commercial blood products, far more extensive analysis of **HIV**-1's life cycle was necessary to define ozone's usefulness as an in vivo...

...4)

When Carpendale and Freeberg(5) studied the effect of ozone at 4 ppm on **HIV**-1 suspensions in vitro, they found that the serous components of the culture medium degraded...

...mimic those of ozone. But Carpendale has never reported on the effects of ozonides on **HIV** in suspension.

Autohemotherapy

Autohemotherapy involves drawing blood from a patient, ozonating it, and returning it...

...impressions from clinical anecdotes conveyed by German periodicals: newspapers, popular magazines, and proponent newsletters.

When **AIDS** became pandemic in the 1980s, the number of patients aware of autohemotherapy rocketed. Organizations sprang...

...autohemotherapy (with ozone concentrations ranging from 0.1 to 5.0 ppm) had an anti-**HIV** effect in **AIDS** patients.

In 1991, Garber and associates(6) carried out the first well-controlled clinical study of autohemotherapy for **AIDS**. They first tested for safety and found no toxicity after 12 weeks of treatment.

In the trial that followed, **AIDS** patients were entered into a randomized, placebo-controlled, double-blind program designed to enable comparison...

...the effects of unprocessed and ozonated blood infused over eight weeks. All the subjects had **CD4** (T4) cell counts of 200 to 400 per microliter of blood. (A microliter of blood normally contains 1,000 to 1,300 **CD4** cells, the primary "targets" of **HIV**. Also called helper cells, **CD4** cells are a type of T (thymus-derived) lymphocyte.)

This trial showed that the infusion...

...effects in comparison with the controls. Furthermore, the investigators found that autohemotherapy had not altered **CD4** cell counts or the levels of beta-2 macroglobulin, gamma interferon, interleukin-2, neopterin, and the **HIV** antigen p-24 (the "p" stands for "protein"). They concluded that autohemotherapy does not enhance immune response or reduce the p-24 antigen (an **HIV** marker) in **HIV**-infected patients. Independent investigators(7) have replicated these results.

In May 1995, the twelfth World...

...42 papers presented, none was presented by an American and none addressed the treatment of **AIDS** with autohemotherapy. In a letter to me dated August 30, 1995, one of the organizers...

...and other pathologies.

As of this time there is no evidence of its validity.

Do **CD4** cell counts have prognostic significance in determining whether autohemotherapy is effective? Upon **HIV**-1 infection, **CD4** cells migrate to and infect lymphoid organs. This infection depletes **CD4** cells, decreases their functionality, and, eventually, causes dysfunction of the immune system. The consequence is a high risk of opportunistic infections. The utility of **CD4** cell counts for evaluating medicines administered to **HIV**-positive persons is questionable, because of the lack of standardization in: the frequency of the...

...the timing thereof, and the intervals between counts. Moreover, the relationship between the numbers of **CD4** cells in peripheral blood and their immune activity appears weak. This raises the possibility that immune system dysfunction precedes detection of changes in levels of

CD4 cells.

In a 1991 review of clinical histories of **AIDS** patients treated with ozone, H.S. Fuessl, a leading German **AIDS** specialist, stated:(8)

> After observing ozone-treated **AIDS** patents for long periods of time, we noted that patients who had just started on the ozone therapy showed some increases in **CD4** cell counts. But a few weeks later their **CD4** cell counts not only returned to their original

low levels but in many cases went...

...eyes from opportunistic infections soon after beginning the ozone therapy. Those of us who treat **HIV**-infected patients on a daily basis recognize that monitoring the changes of the **CD4** cell counts over a short period of time does not accurately reflect the effect of the treatment or the prognosis of the parent. After following a number of **AIDS** patients that were receiving ozone therapy, I recognized that increases in the **CD4** cell counts could occur in any patient, at any time. But it did not mean that **human immunodeficiency viruses** were being killed or that the infection was being arrested. In spite of this knowledge, **CD4** cell counts are still the primary diagnostic and prognostic tools used by ozone therapists. (my...

...effects of ozone as a treatment for viral infections.

The claim that autohemotherapy can cure **AIDS** is being disseminated by people with more skill in advertising than in science or medicine...

...effectiveness; (c) name the U.S. physicians he said had accomplished seroconversion in hundreds of **AIDS** patients; (d) state how, when or where he had interviewed the 644 German ozone therapists...claims for oxygenation therapy are on shaky or nonexistent ground. Scientific evidence that autohemotherapy benefits **HIV**-infected persons does not exist.

NF contributing editor Saul Green, Ph.D., is a biochemist...

...References

(1) K. H. Wells, J. Latino, J, Gavalchin, and B.J. Polesz, "Inactivation of **Human Immunodeficiency Virus** Type I by Ozone in Vitro," Blood, Vol. 78, 1991, pp. 1882-1890.

(2) Ed McCabe, "Ozone Therapy for **AIDS**," **AIDS** Patient Care, Dec. 1992, pp. 254-255.

(3) "Alternative Medicine: A Hearing Before the Subcommittee...
...dated August 24,1995.

(5) M.T.F. Carpendale and J.K. Freeberg, "Ozone Inactivates **HIV** : Noncytotoxic Concentrations," Antiviral Research, Vol. 16, No. 199, 1991, pp. 281 -292.

(6) G.E...

...Greenway, and M.E. Shannon, "The Use of Ozone Treated Blood in the Therapy of **HIV** Infection and Immune Disease: A Pilot Study of Safety and Efficacy," **AIDS**, Vol. 5, 1991, pp. 981-984.

(7) M.H. Hooker and B.G. Gazzard, "Ozone Treated Blood in the Treatment of **HIV** Infection," **AIDS**, Vol. 6, 1991, p. 131.

(8) H.S. Fuessl, "Ozone for **AIDS**," Z. Alig. Med., Vol. 67, 1991, pp. 1334- 1336.

(9) B. Burkhard, letter to Saul...

Descriptors:
Hyperbaric oxygenation--

9/3,K/72 (Item 38 from file: 149)
TGG Health&Wellness DB(SM)

01232533 **Supplier Number:** 08262751 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Ozone. (Directory of Antiviral and Immunomodulatory Therapies for AIDS, part 2)

DeNoon, Daniel J.
CDC AIDS Weekly , p48(1)
Jan 8 ,
1990
Publication Format: Newsletter
ISSN: 0884-903X
Language: English
Record Type: Fulltext **Target Audience:** Academic; Professional
Word Count: 211 **Line Count:** 00023
Ozone. (Directory of Antiviral and Immunomodulatory Therapies for AIDS, part 2)

...those that are toxic to normal cells, ozone has been shown to completely inactivate extracellular **HIV** in vitro. **HIV**-infected H9 cells grown in culture media treated with ozone formed only 10 to 15...

...H9 cultures also produced significantly less infectious virus than did controls.

According to AmFAR, five **AIDS**/ARC patients at San Francisco Veterans Administration Hospital were given 350cc to 800cc of an...

...three weeks. No toxicity was reported.

Horst Kief, a German naturopathic physician, has treated several **AIDS**/ARC patients with "**hyperbaric** ozone **therapy**."
Kief claims that in patients without advanced **AIDS**, "astonishing improvement of clinical status" was noted. Kief's treatment, while not connected with the...

...more information see:

In Vitro Study:

Freeberg, J.K. and Carpendale, M. IV Int Conf **AIDS**, abstract 3560

Treatment of German Patients:

Kief, H. Erfahrungsheilkunde, July 1988; pp. 4-10

Descriptors:
AIDS (Disease...

...**HIV** (Viruses...

...**AIDS**-related complex

9/3,K/73 (Item 39 from file: 149)
TGG Health&Wellness DB(SM)

01196444 **Supplier Number:** 08134637 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Ozone. (Directory of Antiviral and Immunomodulatory Therapies for AIDS - DAITA, part 2)

DeNoon, Daniel J.
CDC AIDS Weekly , p34(1)
Jan 9 ,
1989
Publication Format: Newsletter
ISSN: 0884-903X
Language: English
Record Type: Fulltext **Target Audience:** Academic; Professional
Word Count: 249 **Line Count:** 00024
Ozone. (Directory of Antiviral and Immunomodulatory Therapies for AIDS - DAITA, part 2)

...those that are toxic to normal cells, ozone has been shown to
completely inactivate extracellular **HIV** in vitro. **HIV**
-infected H9 cells grown in
culture media treated with ozone formed only 10 to 15...

...also produced significantly less
infectious virus than did controls.
According to the American Foundation for **AIDS** Research
(AmFAR), five
AIDS/ARC patients at San Francisco Veterans Administration
Hospital were given
350cc to 800cc of an...

...three weeks. No toxicity was reported.
Horst Kief, a German naturopathic physician, has treated several
AIDS/ARC
patients with "**hyperbaric** ozone **therapy**." Kief claims
that in patients without advanced
AIDS, "astonishing improvement of clinical status" was noted.
Kief's treatment, while
not connected with the...

...information see:
In Vitro Study:
Freeberg, J.K. and Carpendale, M. 1988 IV Int Conf **AIDS**,
Abstract 3560

Treatment of German Patients:
Kief, H. Erfahrungsheilkunde, July 1988; pp. 4-10

Descriptors:
...**AIDS** (Disease

9/3,K/75 (Item 41 from file: 149)
TGG Health&Wellness DB(SM)

01086494 **Supplier Number:** 03976875 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Hyperbaric oxygen bounces back; after years in the shadows, high-dose, high-pressure oxygen administration is making a comeback as a legitimate treatment for certain conditions.

Silberner, Joanne
Science News , v128 , p236(3)
Oct 12 ,
1985
Publication Format: Magazine/Journal
ISSN: 0036-8423
Language: English
Record Type: Fulltext **Target Audience:** Academic; Consumer
Word Count: 1688 **Line Count:** 00167

Text:

Hyperbaric oxygen **therapy** -- the administration of 100 percent oxygen at greater than sea level pressure -- has had its...

...say, is the field getting the scientific study it deserves, and the work is revealing **hyperbaric** oxygen **therapy** to be a useful adjunct in treating a variety of conditions. The upswing has not gone unnoticed by the medical community: Between 1977 and 1984, the number of **hyperbaric chambers** in the United States increased sixfold.
Because of its ability to force gas bubbles in...

...treated acute diseases with high pressure and chronic conditions with low pressure. In the 1800s **hyperbaric chambers** became popular acorss Europe, and were referred to as "compressed air baths."
In the 1930s...

...old or diseased tissue, it was thought, and many medical and research institutions invested in **hyperbaric chambers**.
Extensive studies were done to determine whether cancer could be treated with high-pressure oxygen...

...no oxygen, subsequent bone repair and bone growth donht occur, and chronic wounds result. With **hyperbaric treatment**, he says, "the higher pressure in the blood allows the budding of new capillaries into...

...hard-to-treat bone, fungal and soft-tissue infections. As a measure of its acceptance, **hyperbaric treatment** for nearly a dozen conditions is paid for by Medicare, and Blue Cross/Blue Shield...

...in Philadelphia, has looked at some of the more controversial uses. In 1982 it deemed **hyperbaric** oxygen **therapy** unacceptable for arhritis, investigational for chronic osteomyelitis and as-yet-unproven for actinomycosis, a fungal...lower pressure too quickly, dissolved gases can literally -- and fatally -- effervesce out of the blood. "**Hyperbaric medicine** is really an outgrowth of man exploring unusual environments," says Lambertsen.

Clinical use of the...

...M. Myers, who keeps a registry for the Undersea Medical Society and is director of **hyperbaric medicine** at the University of Maryland in Baltimore, there were 37 functional chambers. In 1984 there...

...infections--such as cases of osteomyelitis, a bone infection, that have not responded to antibiotic **therapy**. **Hyperbaric** oxygen boosts the activity of white blood cells that kill bacteria. It does so by...

...themselves of bacteria better if the animals are breathing [hyperbaric] oxygen," says Hunt.

That oxygen **aids** in wound repair can be seen in the differential rate of healing in different parts...

Descriptors:
...**Hyperbaric oxygenation--**

9/3,K/76 (Item 1 from file: 135)
NewsRx Weekly Reports

0000435915 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from University of Florence, Italy, highlight recent research

Pharma Business Week, February 5, 2007, p.1984

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English
RECORD TYPE: FULLTEXT

Word Count:
1231

... playing a minor role."

Duranti and colleagues published their study in (Dyspnea during exercise in **hyperbaric** conditions. **Medicine** and Science In Sports & Exercise, 2006;38(11):1932-8).

For additional information, contact R...
...di Medicina Interna, Unita Funzionale di Medicina Iperbarica, Firenze, Italy.

Study 2: Infants with perinatal **HIV**-1 infection benefit from early combined antiretroviral therapy.

Researchers in Italy conducted a study "to...

...Centers for Disease Control and Prevention (CDC) category N, A, or B] infants with perinatal **HIV**-1 infection."

Elena Chiappini at the University of Florence and collaborators explained, "A multicenter nationwide...

...years (range, 1.0-6.5 years)."

"No difference was evident in the first available **viral load** and **CD4** T-lymphocyte percentage between the two groups of children," the researchers reported. "Early-treated infants showed significantly lower **viral loads** than infants receiving deferred treatment at all the follow-up periods. A higher proportion of...

...infants receiving deferred treatment (73.3% vs 30.1%; p<0.0001) reached an undetectable **viral load**. Higher **CD4** T-lymphocyte percentages were found in early-treated infants at 13-24 (p<0.0001...

...versus 20 of 103 (19.4%) infants receiving deferred ART (p=0.02) showed a **CD4** T-lymphocyte percentage of less than 15% at one time point during follow-up," noted...

...in (Virologic, immunologic, and clinical benefits from early combined antiretroviral therapy in infants with perinatal **HIV**-1 infection. **AIDS**

, 2006;20(2):207-215).

For additional information, contact Elena Chiappini, Department of Pediatrics, University of Florence, Italian Register for **HIV** Infection in Children, Via Luca Giordano 13, I-50132 Florence, Italy.

Study 3: Cancer lymphangiogenesis...

9/3,K/78 (Item 1 from file: 98)
General Sci Abs

04375438 **H.w. Wilson Record Number:** BGSA00125438
Hyperbaric oxygen therapy in the care of infectious disease.

Sadovsky, Richard
American Family Physician (Am Fam Phys) v. 62 no1 (July 1 2000) p. 206-7
Special Features: il **ISSN:** 0002-838X
Language: English
Country Of Publication: United States
Hyperbaric oxygen therapy in the care of infectious disease.

Abstract: ...New areas of research include the use of HBO in treating patients with mucormycosis and human immunodeficiency virus-related fatigue. Further study is required to ascertain the full potential of HBO.

Descriptors:
Hyperbaric oxygenation; Communicable diseases...

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b 350, 347
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[File 350] **Derwent WPIX** 1963-2007/UD=200730

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)


```
?  d s
Set     Items   Description
S1        743   S HYPERBARIC
S2      66948   S HIV OR AIDS OR HUMAN()IMMUNODEFICIENCY()VIRUS? OR
HUMAN()IMMUNO()DEFICIENCY()VIRUS? OR HUMAN()IMMUNE()DEFICIENCY()VIRUS? OR
HUMAN()IMMUNEDEFICIENCY()VIRUS? OR ACQUIRED()IMMUNE()DEFICIENCY OR
ACQUIRED()IMMUNEDEFICIENCY OR ACQUIRED()IMMUNO()DEFICIENCY OR ACQUIRED()IMMUNODEFICIENCY
OR VIRAL()LOAD? OR CD4 OR CD8 OR T()CELL? ?
S3          38   S S1 AND S2
S4          38   IDPAT S3 (sorted in duplicate/non-duplicate order)
```

4/5/6 (Item 6 from file: 350)
Derwent WPIX

0014967513
WPI Acc no: 2005-315319/200532
XRAM Acc no: C2005-097893
Method of delivering oxygen to blood and tissue in treatment of e.g. cancer, viral diseases, ocular diseases and inflammatory diseases, involves delivery source comprising aqueous solution of tetrameric oxygen
Patent Assignee: BOSTON J (BOST-I)
Inventor: BOSTON J

Patent Family (3 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005032480	A2	20050414	WO 2004US32375	A	20041004	200532	B
EP 1675600	A2	20060705	EP 2004793979	A	20041004	200644	E
			WO 2004US32375	A	20041004		
JP 2007507528	W	20070329	WO 2004US32375	A	20041004	200725	E
			JP 2006534147	A	20041004		

Priority Applications (no., kind, date): US 2003508748 P 20031003

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes

WO 2005032480	A2	EN	16	0		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1675600	A2	EN			PCT Application	WO 2004US32375
					Based on OPI patent	WO 2005032480
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					
JP 2007507528	W	JA	14		PCT Application	WO 2004US32375
					Based on OPI patent	WO 2005032480

Alerting Abstract WO A2

NOVELTY - Method of delivering oxygen to blood and tissue involves a delivery source comprising an aqueous solution of tetrameric oxygen.

ACTIVITY - Respiratory Gen.; Vasotropic; Dermatological; Cytostatic; Analgesic; Ophthalmological; Antianemic; Anti-**HIV**; Virucide; Vulnerary; Antiarrhythmic; Antimigraine; Antiparkinsonian; Neuroprotective; Nootropic; Cerebroprotective; Antibacterial; Fungicide; Antiinflammatory.

MECHANISM OF ACTION - Gene therapy.

USE - For oxygenating blood and tissue; for treating respiratory conditions or as an adjunct treatment in anesthesia, vascular and circulatory insufficiencies and peripheral vascular disease, cancer or cancer metastases, peripheral neuropathies and ischemia induced pain, ocular damage associated with aging, free radicals and metabolite mediated cellular damage, cataracts, anemia and hemoglobinopathies and blood dyscrasia, age related macular degeneration, corneal hypoxia from contact lens wear, ocular ischemia and retinopathies; skin conditions and increasing transcutaneous levels of tissue oxygenation; for prevention or treatment of photo reactivation of existing **HIV** infection, Herpes, infection, refractory infection, fungal/bacterial/viral/inflammatory conditions; as target therapy, as adjunct to chemotherapy and radiation therapy; as a sterile solution (i.e. surgical preparation) for cleansing skin, an anti-aging agent for prevention and reduction of skin wrinkles, comedogenicity, providing moisture and improving tone, tightening pores; as a free radical scavenger or neutralizer; for cancer safety research, cancer research and protocol development; prevention and reduction of increased **viral load** from UV reactivation and conditions related to **HIV** and **AIDS** and other Immune deficiency conditions; for free radicals and metabolite mediated cellular damage, cataracts; for preservation of corneal health in corneal transplant and other organ transplants, and tissue transplants including skin grafts; in a transdermal oxygen delivery system in healthy or compromised skin; in combination as a transdermal delivery system for prolonged pain relief; for treatment for patients requiring supplemental oxygen in respiratory conditions or in environments with compromised oxygen; for preventing damage from decreased ozone and associated UV damage; to prevent and treat impairment of immune function related to UV exposure; for transcutaneous oxygen delivery for treatment of surgical wounds, non-healing ulcers due to ischemia; as a transdermal patch for treatment of cardiac induced ischemia and respiratory insufficiency; with other ingredients as pain, muscle relief formula for prevention of lactic acid build-up and induced muscle cramping and other related conditions; as oxygen therapy; as a body wrap; as a method of detoxification, immunotherapy and microcidal, microstatic; as treatment of ischemic and vasculogenic neuropathies; as treatment of ocular and systemic

vasculopathies in diabetes and other related conditions; treatment for vasculogenic headaches (e.g. migraines); to increase tissue oxygenation in non-healing ulcers due to ischemia; to increase viability of transplant organs cornea, liver, kidneys, cardiac, pancreas and stem cells; to facilitate fetal lung development and treat fetal hypoxia and related conditions; to prevent and treat antioxidant and reactive oxygen species related damage; to treat burns, wounds and other non-healing wounds; to treat ischemia induced conditions; to increase tissue oxygenation and tissue oxygen saturation; as gene therapy and as an adjunct to gene therapy; as medical research; to treat reperfusion induced arrhythmias, reperfusion of limbs, vasculogenic damage and trauma induced ischemia; to prevent and treat skin damage in cancer patients (i.e. delayed radiation injury); to prevent development of molecular damage and skin cancer; as immunotherapy, in infectious and inflammatory conditions; for prevention and treatment of neurological deterioration in neurological conditions (e.g. Parkinson's disease, Alzheimer's and other neurodegenerative diseases); for treating conditions treated by **hyperbaric** oxygen (e.g. strokes, migraine headaches, refractory infection, wounds, anemia, air or gas embolism, carbon monoxide poisoning, myositis and myonecrosis, crush injury, compartment syndrome and acute traumatic ischemia, decompression sickness, wounds, abscess, necrotizing soft tissue infection, osteomyelitis, skin grafts and flaps, thermal bums, radiation injury); gene therapy or medical treatment; for reducing hypoxic states induced by cancer and relieving tumor resistance by improving oxygen delivery to tissues; for prevention and treatment of UV induced damage; for culturing cells; for prevention and treatment of mitochondrial damage from reactive oxygen species; for prevention and treatment of angina and cardiac conditions; for drug delivery through scalp; for development of hair dye; for neutralization or prevention of hydrogen peroxide and other free radicals and reactive oxygen species; in the treatment of conditions requiring oxygen including but not limited to current conditions; for use in marketing products with the transcutaneous oxygen monitor; as chemotherapy adjunct or incorporated within existing drugs to improve pharmacokinetics for chemotherapy and radiation therapy moderator; as adjunct or incorporated within drugs to improve pharmacokinetics for antibiotics or as adjunct to antibiotic treatment; for study mechanisms of cancer as related to hypoxia and resistance, optimal treatment and tumor growth (all claimed).

ADVANTAGE - The delivery source is readily available and adaptable. It is nontoxic having numerous application. The method improves blood oxygen level in chronic disease condition and anemia, thus reducing or eliminating the need for blood transfusion and the occurrences of transfusion associated reactions and blood borne infections. Use of the delivery source is superior to **hyperbaric** oxygen because of reduction in systemic side effects, localized treatment creating greater patient access and compliance. The aqueous solution of tetrameric oxygen includes many type of formulations, constitutions and delivery systems. It improves the effectiveness of treatment, improves treatment profiles and reduces issues such as side effects and limited accessibility. The method relieves tumor resistance by creating a localized **hyperbaric** condition, increases chemotherapy sensitivity and radiosensitivity of tumors; heals and prevents infection after surgical procedures including laser, plastic surgery, post Botox injection; facilitates drug mechanisms of existing drugs and wound healing, skin grafts and flaps; and is used in gene therapy when the hypoxic induction factor (HIF) pathway is a target where the target tissue is arteriosclerosis and atherosclerotic plaques.

Title Terms /Index Terms/Additional Words: METHOD; DELIVER; OXYGEN; BLOOD; TISSUE; TREAT; CANCER; VIRUS; DISEASE; OCULAR; INFLAMMATION; SOURCE; COMPRISE; AQUEOUS; SOLUTION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61K-0033/40	A	I		R	20060101
A61K-0033/00	A	I	F	B	20060101

A61P-0011/00	A	I	L	B	20060101			
A61P-0017/02	A	I	L	B	20060101			
A61P-0025/02	A	I	L	B	20060101			
A61P-0025/06	A	I	L	B	20060101			
A61P-0025/16	A	I	L	B	20060101			
A61P-0025/28	A	I	L	B	20060101			
A61P-0027/02	A	I	L	B	20060101			
A61P-0027/12	A	I	L	B	20060101			
A61P-0003/10	A	I	L	B	20060101			
A61P-0031/00	A	I	L	B	20060101			
A61P-0031/18	A	I	L	B	20060101			
A61P-0031/22	A	I	L	B	20060101			
A61P-0035/00	A	I	L	B	20060101			
A61P-0039/02	A	I	L	B	20060101			
A61P-0039/06	A	I	L	B	20060101			
A61P-0041/00	A	I	L	B	20060101			
A61P-0043/00	A	I	L	B	20060101			
A61P-0007/00	A	I	L	B	20060101			
A61P-0007/06	A	I	L	B	20060101			
A61P-0009/06	A	I	L	B	20060101			
A61P-0009/10	A	I	L	B	20060101			
A61K	S	I		R	20060101			
A61K-0033/40	C	I		R	20060101			
A61K-0033/00	C	I		B	20060101			
A61P-0011/00	C	I		B	20060101			
A61P-0017/00	C	I		B	20060101			
A61P-0025/00	C	I		B	20060101			
A61P-0027/00	C	I		B	20060101			
A61P-0003/00	C	I		B	20060101			
A61P-0031/00	C	I		B	20060101			
A61P-0035/00	C	I		B	20060101			
A61P-0039/00	C	I		B	20060101			
A61P-0041/00	C	I		B	20060101			
A61P-0043/00	C	I		B	20060101			
A61P-0007/00	C	I		B	20060101			
A61P-0009/00	C	I		B	20060101			

File Segment: CPI
DWPI Class: B06; D22
Manual Codes (CPI/A-N): B05-C08; B11-C04; B11-C08; B12-K04A; B12-M02F; B14-A01; B14-A02; B14-A04; B14-C01; B14-C03; B14-C07; B14-F01; B14-F02; B14-F02C; B14-F03; B14-F05; B14-G01B; B14-H01; B14-J01A3; B14-J01A4; B14-J05; B14-K01; B14-M01; B14-N03; B14-N16; B14-N17; B14-R01; B14-R02; B14-S03; B14-S04; B14-S08; D09-C

4/5/7 (Item 7 from file: 350)
Derwent WPIX

0014874341
WPI Acc no: 2005-222064/200523
XRAM Acc no: C2005-071086
XRPX Acc No: N2005-183041
Treatment of patient infected with virus for preventing reproduction of virus e.g. HIV involves exposing patient to nitrogen, surface air, inert gas or nitrogen oxide at specific pressures for specific time periods in pressurized chamber
Patent Assignee: HARRIS M F (HARR-I)
Inventor: HARRIS M F

Inventor

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	I
US 20050056285	A1	20050317	US 2003660429	A	20030912	2

Priority Applications (no., kind, date): US 2003660429 A 20030912

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20050056285	A1	EN	20	10	

Alerting Abstract US A1
NOVELTY - Treating patient infected with virus, comprising exposing the patient to at least one gas selected from nitrogen, surface air, inert gas, nitrogen oxide and another anesthetic at selected pressures for selected time periods in **hyperbaric** or pressurized chamber, is new. The pressure applied is greater than one atmosphere or equal to underwater pressure of 70-165 feet.
ACTIVITY - Anti-**HIV**.
No biological data is given.
MECHANISM OF ACTION - None given.
USE - For treating a patient infected with virus such as **HIV** for preventing reproduction of virus by increasing a ratio of **CD4/ CD8** lymphocytes and reducing a **viral load** and restoring an immune system, including lymph node architecture (claimed).
ADVANTAGE - The inhaled nitrogen blocks virus-host attachment sites and prevents the virus from replicating. The method increases a ratio of **CD4/CD8** lymphocytes with better preservations of lymph node architecture and improves physical conditions of the patient after treatment. The method is used to treat more than one patient at a time in the chamber.

Title Terms /Index Terms/Additional Words: TREAT; PATIENT; INFECT; VIRUS; PREVENT; REPRODUCE; **HIV**; EXPOSE; NITROGEN; SURFACE; AIR; INERT; GAS; OXIDE; SPECIFIC; PRESSURE; TIME; PERIOD; PRESSURISED; CHAMBER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-016/00			Main		"Version 7"

US Classification, Issued: 128205260, 128200240

File Segment: CPI; EngPI
DWPI Class: B07; P34
Manual Codes (CPI/A-N): B05-C03; B12-M01E; B14-A02B1

4/5/14 (Item 14 from file: 350)
Derwent WPIX

0013777612
WPI Acc no: 2003-876961/200381
XRAM Acc no: C2003-247533
XRPX Acc No: N2003-700359
Use of oxygenating agents e.g. hydrogen peroxide, tetrachlorodecaoxide or ozone for treating microbial infections other than by hyperbaric oxygen therapy
Patent Assignee: EXPONENTIAL BIOTHERAPIES INC (EXPO-N); CARLTON R M (CARL-I); GALPIN J E (GALP-I)
Inventor: CARLTON R M; GALPIN J E

Patent Family (5 patents, 102 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003082392	A2	20031009	WO 2003US9226	A	20030326	200381	B
AU 2003258604	A1	20031013	AU 2003258604	A	20030326	200435	E
EP 1519750	A2	20050406	EP 2003741756	A	20030326	200523	E
			WO 2003US9226	A	20030326		
CN 1655817	A	20050817	CN 2003812330	A	20030326	200572	E
US 20060134186	A1	20060622	US 2002367732	P	20020328	200642	E
			WO 2003US9226	A	20030326		
			US 2005509285	A	20050627		

Priority Applications (no., kind, date): US 2005509285 A 20050627; US 2002367732 P 20020328

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003082392	A2	EN	33	0		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003258604	A1	EN			Based on OPI patent	WO 2003082392
EP 1519750	A2	EN			PCT Application	WO 2003US9226
					Based on OPI patent	WO 2003082392
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
US 20060134186	A1	EN			Related to Provisional	US 2002367732
					PCT Application	WO 2003US9226

Alerting Abstract WO A2

NOVELTY - Treatment of microbial infections other than by **hyperbaric** oxygen therapy (HBO) involves administering an oxygenating agent.

ACTIVITY - Antibacterial.

FLUOSOL (RTM; oxygenating agent) (1.8 g/kg) and/or clindamycin (150 mg/ml) were administered to mice for treating peritoneal abscess. The results showed that the combination of **FLUOSOL** (RTM) and/or clindamycin was more efficacious in reducing the bacterial counts than clindamycin alone. The combination also improved the histopathology results.

MECHANISM OF ACTION - None given.

USE - For treating microbial infections other than by HBO in humans caused by any type of bacterium, virus, yeast, fungus, mold, algae or parasite (protozoa, amoeba etc.) (e.g. *S. aureus* , *P. aeruginosa* , *S. typhimurium* , *E. coli* , *S. pyogenes* , *Serratia marcescens* , *P. mirabilis* , *C. albicans* , or *M. tuberculosis*); multidrug resistant microbe (e.g. vancomycin-resistant *Enterococcus faecium* and vancomycin intermediate-resistant or vancomycin-resistant *Staphylococcus aureus*); microbes that can be directly harmed by increases in pO_2 (e.g. *Clostridium difficile* , *Clostridium perfringens* , *Propionibacterium acnes* , or *Porphyromonas gingivalis*); microbes that can be indirectly harmed by increases in pO_2 which augments the innate host antimicrobial defenses (e.g. oxidative oxygen-dependent burst of professional phagocytes). The augmentation is an increased ability under a higher pO_2 of various white blood cells to generate free radicals that will in turn kill intracellular specimens e.g. *S. typhimurium* and HIV (claimed).

ADVANTAGE - The method can be used for treating infecting microbes from any group particularly the microbes which are difficult to treat in hypoxic/ischemic sites, resulting in a decreased rate of microbial replication thus rendering the microbes unresponsive to those antimicrobial agents which require active replication for effectiveness. The method can also be used for treating microbes which are difficult to treat in intracellular locations including macrophages, T cells, neurons and hepatocytes; any walled-off area including abscess or a tubercle; inside a body cavity; inside a sac (e.g. pericardium); inside a joint; **in the** recesses of bone; in the lumen of a hollow organ (e.g. gastrointestinal tract, urinary bladder, genital organs, and upper and lower respiratory tract and its sinuses); in a periodontal site; or in the linings of any organ (e.g. peritoneum, pleural lining, and the meninges or other linings of

the brain) which is difficult for antimicrobial agents to diffuse. The wild-type or strain bacteriophages patented due to special characteristics (e.g. long circulation time and therefore delayed clearance by the RES) which cannot efficiently propagate when the bacterial target is in a hypoxic milieu, are made more efficient by the method. The method increases in tissue pO_2 produced thus enhancing the efficacy of the body's own antimicrobial defenses (including tissue repair), while also improving the efficacy of the co-administered adjunctive agents. The oxygenating agent achieves the desired increased pO_2 in the tissues without having to resort to the risks and expenses of HBO. The oxygenating agent can be administered to specific tissues without toxicity to other regions (e.g. cornea) that may be harmed by increased pO_2.

Title Terms /Index Terms/Additional Words: OXYGENATE; AGENT; HYDROGEN; PEROXIDE; OZONE; TREAT; MICROBE; INFECT; **HYPERBARIC**; OXYGEN; THERAPEUTIC

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61K-0031/02	A	I		R	20060101
A61K-0033/00	A	I		R	20060101
A61K-0033/32	A	I		R	20060101
A61K-0033/40	A	I		R	20060101
A61K-0038/42	A	I		R	20060101
A61K-0038/42	A	I	F	B	20060101
A61K-0038/44	A	I		R	20060101
A61K-0045/06	A	I		R	20060101
A61K-0009/127	A	I	L	B	20060101
A61K-0009/70	A	I	L	B	20060101
A61K-0031/02	C	I		R	20060101
A61K-0033/00	C	I		R	20060101
A61K-0033/32	C	I		R	20060101
A61K-0033/40	C	I		R	20060101
A61K-0038/41	C	I		R	20060101
A61K-0038/41	C	I	F	B	20060101
A61K-0038/43	C	I		R	20060101
A61K-0045/00	C	I		R	20060101

US Classification, Issued: 424449000, 514006000, 424450000

File Segment: CPI; EngPI
DWPI Class: A96; B04; B05; P34
Manual Codes (CPI/A-N): A12-V01; B03-F; B03-H; B04-B01C2; B04-B03A; B04-C03B; B04-C03D; B04-G01; B04-H02; B04-H06; B04-N02; B05-C08; B07-D13; B10-A10; B11-C04A; B14-A01; B14-A04; B14-N17B; B14-S09

4/5/19 (Item 19 from file: 350)
Derwent WPIX

0012942155
WPI Acc no: 2003-018849/200301
XRAM Acc no: C2003-004619
Method useful for treatment of patients infected with a virus, e.g. HIV, involves the use of a hypobaric chamber to expose patients to certain gases e.g. nitrogen, surface air, or an inert gas, under pressure
Patent Assignee: HARRIS M F (HARR-I)
Inventor: HARRIS M F

Inventor

Patent Family (4 patents, 57 countries)

Patent Number	Kind	Date	Application Number	Kind	Date		
WO 2002076403	A2	20021003	WO 2002US9416	A	2002032		
EP 1383563	A2	20040128	EP 2002725370	A	2002032		
			WO 2002US9416	A	2002032		
AU 2002255937	A1	20021008	AU 2002255937	A	2002032		
AU 2002255937	A8	20051013	AU 2002255937	A	20020325	200616	E

Priority Applications (no., kind, date): US 2001278141 P 20010323

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2002076403	A2	EN	43	10		
National Designated States,Original	AE AU BR BZ CA CN CR FI HR HU IL IN JP KP KR MX NO NZ PH SI SK TT US VN ZA					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
EP 1383563	A2	EN			PCT Application	WO 2002US9416
					Based on OPI patent	WO 2002076403
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR					
AU 2002255937	A1	EN			Based on OPI patent	WO 2002076403
AU 2002255937	A8	EN			Based on OPI patent	WO 2002076403

Alerting Abstract WO A2
NOVELTY - Method of increasing a ratio of **CD4/CD8** lymphocytes, reducing a **viral load** and restoring an immune system, including lymph node architecture of a person infected with at least one virus (preferably **HIV**) involves placing the person in a **hyperbaric** chamber and exposing them to at least one pressurized gas for preset

period of time.
DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

16. Preventing reproduction of a virus involving using a pressurized chamber; and

17. Treatment of patients infected with a virus involving inhalation of gases comprising nitrous oxide (>=5%), for at least one set time period.

ACTIVITY - Anti-HIV.
MECHANISM OF ACTION - HIV viral replication inhibitor or blocker.
USE - For increasing a ratio of CD4/CD8 lymphocytes, reducing a viral **load and** restoring an immune **system, including** lymph node architecture, of a person infected with at least one virus such as HIV virus; for preventing reproduction of **a** virus and for the treatment of patients infected with a virus (claimed).
ADVANTAGE - The method takes advantage of the anesthetic membrane effect brought about by certain gases under pressure, prevents virus from replicating and mutating, inhibits HIV viral replication, changes lymphocyte cell **membrane** fluidity and leads to stabilization of immune responsiveness. The inhaled nitrogen blocks virus-host attachment sites and prevents the virus from replicating, thus reducing viral load and restoring a patient's **immune** system. The enriched nitrogen increases CD4/CD8 ratios with better preservation **of lymph** node architecture and improves physical conditions of the patient treatment. 5 - 10 % of nitrous oxide in air breathed for the period of at least two hours daily would be equally effective as compressed air at 72 feet in preventing a fall in CD4/CD8 ratio.

Title Terms /Index Terms/Additional Words: METHOD; USEFUL; TREAT; PATIENT; INFECT; VIRUS; **HIV**; HYPOBARIC; CHAMBER; EXPOSE; GAS; NITROGEN; SURFACE; AIR; INERT; PRESSURE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61K; A61M-015/00			Main		"Version 7"
A61G-010/00; A61G-011/00; A61H-031/00; A61H-031/02; A62B-031/00; A62B-007/00; B64D-010/00			Secondary		"Version 7

File Segment: CPI; EngPI
DWPI Class: B06; P33; P34; P35; Q25
Manual Codes (CPI/A-N): B11-C09; B14-A02

4/5/23 (Item 23 from file: 350)
Derwent WPIX

0012360536

WPI Acc no: 2002-303156/200234
XRAM Acc no: C2002-088163
XRPX Acc No: N2002-237164

Use of hyperbaric oxygenation for increasing efficiency or decreasing the cytostatic effect of reproduction suppressing drug for human immunodeficiency virus, e.g. azidothimidin

Patent Assignee: KARAMOV E V (KARA-I); KORNILAEVA G V (KORN-I); KOSTYUNIN V N (KOST-I); PAKHOMOV V I (PAKH-I); SHTSHELKANOV M Y (SHTS-I); SOKOLOV A E (SOKO-I)
Inventor: KARAMOV E V; KORNILAEVA G V; KOSTYUNIN V N; PAKHOMOV V I; SHTSHELKANOV M Y; SOKOLOV A E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020019356	A1	20020214	US 1999303652	A	19990503	200234	B

Priority Applications (no., kind, date): RU 1998109354 A 19980518

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20020019356	A1	EN	4	0	

Alerting Abstract US A1
NOVELTY - Increasing efficiency and/or decreasing the cytotoxic effect of a **human immunodeficiency virus** (**HIV**) reproduction-suppressing drug (preferably azidothimidin) involves the use of **hyperbaric** oxygenation (HBO).
ACTIVITY - Anti-**HIV**.
MECHANISM OF ACTION - **HIV** reproduction inhibitor.
Supt 1 cells (18 million) in **RPM1-1640** (growth medium) (60 ml) with 10% fetal calf serum, L-glutamine (2 mM) and genthamycin (50 mg/ml) were subjected to hyperbaric oxygenation (**HBO**) (Ox+). The HBO was carried out in the oxygenous pressure chamber. The chamber was blown out with oxygen over 7 minutes to obtain O_2 concentration of 98 - 100%. The compression rate was 1077 ate/minute and the time period of isocompression was 40 minutes.
After finishing the HBO, the O_2 pressure was decreased to atmospheric pressure during 6 minutes and in each well of the 24-wells plate was added cell suspension (45 mul) and a growth substance (50 mul) with a different concentrations of azidothimidin (AZT). The plates were incubated over 2 hours at 37(deg)C and infected with HIV-1BRU (non-resistant to AZT) and HIV-**1A216** (resistant to AZT). A comparative method **was** carried out without exposing the cells with HBO.
The ED_{50} value for oxygenated and non-oxygenated samples were compared and were found to be -10.4 and -7 respectively, which indicated the increase in anti-HIV efficiency of AZT.
USE - For increasing efficiency and/or decreasing the cytotoxic effect of HIV reproduction-suppressing drug e.g. azidothimidin.
ADVANTAGE - The combination of the AZT and HBO reduces the level of viral antigen expression and the compound of the proviral DNA copies more than single AZT; increases the cell viability in a HIV infected cultures.

Title Terms /Index Terms/Additional Words: **HYPERBARIC**; OXYGENATE; INCREASE; EFFICIENCY;

DECREASE; CYTOSTATIC; EFFECT; REPRODUCE; SUPPRESS; DRUG; HUMAN; IMMUNODEFICIENCY; VIRUS

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
C07H-019/00			Main		"Version 7"
A01N-033/18; A01N-033/24; A01N-043/04; A61G-010/00; A61K-031/04; A61K-031/70; C07H-019/48			Secondary		"Version 7

US Classification, Issued: 514043000, 514042000, 514740000, 536028100, 536028200, 128202120

File Segment: CPI; EngPI
DWPI Class: B06; P33
Manual Codes (CPI/A-N): B05-C08; B07-A02A; B07-D12; B11-C01C; B11-C09; B14-A02B1

4/5/33 (Item 33 from file: 350)
Derwent WPIX

0008574431
WPI Acc no: 1998-108792/199810
XRAM Acc no: C1998-035644
XRPX Acc No: N1998-087135
Inhibition of human immunodeficiency virus reproduction and increase of resistance of healthy cells - by exposure to oxygen at pressure higher than atmospheric pressure
Patent Assignee: PAKHOMOV V I (PAKH-I)
Inventor: KARAMOV E V; PAKHOMOV V I; SOKOLOV A E

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
RU 2084212	C1	19970720	RU 1996106127	A	19960404	199810	B

Priority Applications (no., kind, date): RU 1996106127 A 19960404

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
RU 2084212	C1	RU	4	0	

Alerting Abstract RU C1
Inhibition of **human immunodeficiency virus** (**HIV**) reproduction and increasing the resistance of healthy cells to it comprises treating the healthy cells with oxygen at a pressure greater than atmospheric pressure.
USE - The method is used to prevent or treat **AIDS**.
ADVANTAGE - The method is nontoxic to healthy cells.

Title Terms /Index Terms/Additional Words: INHIBIT; HUMAN; IMMUNODEFICIENCY; VIRUS; REPRODUCE; INCREASE; RESISTANCE; HEALTH; CELL; EXPOSE; OXYGEN; PRESSURE; HIGH; ATMOSPHERE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61G-010/02			Main		"Version 7"
A61K-031/21; A61K-035/76			Secondary		"Version 7

File Segment: CPI; EngPI
DWPI Class: B04; P33
Manual Codes (CPI/A-N): B14-A02B1